



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2015-5812; Directorate Identifier 2015-NM-077-AD; Amendment 39-18531; AD 2016-11-04]**

**RIN 2120-AA64**

**Airworthiness Directives; The Boeing Company Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** We are superseding Airworthiness Directive (AD) 2011-23-05 for all The Boeing Company Model 737-300, -400, and -500 series airplanes. AD 2011-23-05 required repetitive inspections for cracking of the 1.04-inch nominal diameter wire penetration hole, and applicable related investigative and corrective actions. This new AD adds new inspection areas, a modification that terminates certain inspections, post-modification inspections, and repair if necessary. This AD was prompted by an evaluation by the design approval holder (DAH) that indicates the fuselage frames and frame reinforcements are subject to widespread fatigue damage (WFD). We are issuing this AD to detect and correct fatigue cracking of the fuselage frames and frame reinforcements that could result in reduced structural integrity of the airplane.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain other publication listed in this AD as of November 16, 2011 (76 FR 67343, November 1, 2011).

**ADDRESSES:** For service information identified in this final rule, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-5812.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-5812; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Galib Abumeri, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office (ACO), 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5324; fax: 562-627-5210; email: [galib.abumeri@faa.gov](mailto:galib.abumeri@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2011-23-05, Amendment 39-16856 (76 FR 67343, November 1, 2011) (“AD 2011-23-05”). AD 2011-23-05 applied to certain Model 737-300, -400, and -500 series airplanes. The NPRM published in the Federal Register on November 27, 2015 (80 FR 74047) (“the NPRM”). The NPRM was prompted by an evaluation by the DAH that indicates the fuselage frames and frame reinforcements are subject to WFD. The NPRM proposed to continue to require repetitive inspections for cracking of the 1.04-inch nominal diameter wire penetration hole, and applicable related investigative and corrective actions. The NPRM also proposed to add new inspection areas, a modification that terminates certain inspections, post-modification inspections, and repair if necessary. We are issuing this AD to detect and correct fatigue cracking of the fuselage frames and frame reinforcements that could result in reduced structural integrity of the airplane.

### **Comments**

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM and the FAA’s response to each comment.

### **Effect of Winglets on Accomplishment of the Proposed Actions**

Aviation Partners Boeing stated that accomplishing the supplemental type certificate (STC) ST01219SE ([http://rgl.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rgstc.nsf/0/ebd1cec7b301293e86257cb30045557a/\\$FILE/ST01219SE.pdf](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/ebd1cec7b301293e86257cb30045557a/$FILE/ST01219SE.pdf)) does not affect the actions specified in the NPRM.

We agree with the commenter. We have redesignated paragraph (c) of the proposed AD as paragraph (c)(1) and added a new paragraph (c)(2) to this AD to state that installation of STC ST01219SE ([http://rgl.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rgstc.nsf/0/ebd1cec7b301293e86257cb30045557a/\\$FILE/ST01219SE.pdf](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/ebd1cec7b301293e86257cb30045557a/$FILE/ST01219SE.pdf)) does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST01219SE is installed, a “change in product” alternative method of compliance (AMOC) approval request is not necessary to comply with the requirements of 14 CFR 39.17.

#### **Request to Revise Applicability**

Boeing requested that we change the applicability to “all” airplanes instead of airplanes referenced in Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015. Boeing stated that Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015, specifies the effectivity as “all” airplanes.

We agree with the commenter’s request. In the NPRM we referred to Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015, which specifies an effectivity of all Model 737-300, -400, and -500 series airplanes. For clarity, we have revised the SUMMARY section and paragraph (c)(1) of this AD to specify “all” airplanes.

#### **Request to Revise Compliance Time**

Southwest Airlines (SWA) requested that we revise paragraph (t) of the proposed AD to clearly state all inspections required by paragraph (n) of the proposed AD will be due at the later of 30,000 total flight cycles or 4,500 flight cycles from the effective date of the AD. SWA stated that, for airplanes which have previously accomplished the inspections specified in Boeing Alert Service Bulletin 737-53A1279, Revision 1, dated September 2, 2011, paragraph (n) of the proposed AD and table 1 of paragraph 1.E., “Compliance,” in Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated

April 21, 2015, currently requires inspections 4,500 flight cycles from the last inspection and do not specifically take into account those airplanes already doing the repetitive inspections.

We do not agree with the commenter's request. AD 2011-23-05 required inspections on airplanes with less than 40,000 total flight cycles to begin prior to 30,000 total flight cycles or within 90 days from November 16, 2011 (the effective date of AD 2011-23-05), whichever occurs later. The repetitive inspection intervals of 4,500 flight cycles are not changed. The new WFD requirement lowers the initial airplane applicability total flight cycles from 40,000 to 30,000. Paragraph (n) of this AD addresses airplanes with more than 30,000 total flight cycles as of the effective date of the AD, and all airplanes that have already accomplished the initial inspection or a repetitive inspection. These airplanes are to continue the repetitive inspections at intervals not to exceed 4,500 flight cycles from the last inspection. The commenter's requested change would reset the time to the next inspection from the effective date of this AD instead of from the last inspection. This would result in a one-time increase in the repetitive interval, which would not meet the WFD requirements. We have not changed this AD in this regard.

#### **Request to Clarify Inspections in Paragraphs (m) and (n) of the Proposed AD**

Boeing requested that we clarify the inspections required in paragraph (m) and (n) of the proposed AD. Boeing stated that the words "an inspection" is not specific enough to ensure the required inspections will be accomplished.

We agree with the commenter's request. The wording "an inspection" could be interpreted incorrectly, and the Part 2 or Part 4 inspections specified in Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015, may not be accomplished prior to installation of the preventive modification.

We have revised paragraph (m) of this AD to state in part, “before further flight after accomplishing the Part 2 or Part 4 inspections specified in this paragraph, and no cracking was found, do “Part 5 – Preventative Modification” as specified in the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015.”

We have revised paragraph (n) of this AD to state in part, “before further flight after accomplishing the Part 4 inspection specified in this paragraph, and no cracking was found, do “Part 5 - Preventative Modification” as specified in the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015.”

#### **Request to Remove a Certain Low Frequency Eddy Current (LFEC) Inspection**

Boeing requested that we remove the LFEC inspection in paragraph (s) of the proposed AD. Boeing stated that paragraph (s) of the proposed AD is applicable to Groups 4 through 6 as identified in Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015, and that LFEC inspections are not required for Groups 4 through 6.

We agree with the commenter’s request. We have revised paragraph (s) of this AD by removing the LFEC inspection requirement.

#### **Request to Clarify Service Information Description**

Boeing requested that we include “0.50 inch diameter holes” in the first bullet under the Related Service Information Under 1 CFR Part 51 section. Boeing stated that the 0.50 inch hole was one of the main updates of Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015.

We agree with commenter's request and have revised this final rule accordingly.

### **Request to Revise Responsible FAA ACO**

Boeing requested that we revise paragraph (u)(3) of the proposed AD to reference the Los Angeles ACO instead of the Seattle ACO.

We agree with the commenter's request. In July 2014, the Los Angeles ACO assumed responsibility for the out-of-production Model 737 airplanes. We have revised paragraph (u)(3) of this AD and the engineer contact information accordingly.

### **Conclusion**

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD with the changes described previously, and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

### **Related Service Information under 1 CFR part 51**

We reviewed Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015. The service information describes procedures for the following actions.

- Inspections of wire penetration holes, 0.50 inch diameter holes, standoff/tooling holes, and the production fastener holes for cracking in the forward cargo compartment frames and frame reinforcements, between stringer (S) S-19 and S-22, on both left and right sides of the airplane.
- A preventive modification of frames between S-19 and S-22.

- Post-modification inspections.
- Repairs.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

### Costs of Compliance

We estimate that this AD affects 605 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

#### Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspections [retained actions from AD 2011-23-05]	16 work-hours X \$85 per hour = \$1,360 per inspection cycle	\$0	\$1,360 per inspection cycle	\$822,800 per inspection cycle
Inspections [new action]	32 work-hours X \$85 per hour = \$2,720 per inspection cycle	\$0	\$2,720 per inspection cycle	\$1,645,600 per inspection cycle
Modification [new action]	32 work-hours X \$85 per hour = \$2,720	\$0	\$2,720	\$1,645,600

We estimate the following costs to do any necessary repairs that would be required based on the results of the inspection. We have no way of determining the number of aircraft that might need these repairs:

#### On-condition costs

Action	Labor cost	Parts cost	Cost per product
Repair	18 work-hours X \$85 per hour = \$1,530	\$0	\$1,530



### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We have determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 2011-23-05, Amendment 39-16856 (76 FR 67343, November 1, 2011), and adding the following new AD:

**2016-11-04 The Boeing Company:** Amendment 39-18531; Docket No. FAA-2015-5812; Directorate Identifier 2015-NM-077-AD.

#### **(a) Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

This AD replaces AD 2011-23-05, Amendment 39-16856 (76 FR 67343, November 1, 2011) (“AD 2011-23-05”).

#### **(c) Applicability**

(1) This AD applies to all The Boeing Company Model 737-300, -400, and -500 series airplanes; certificated in any category.

(2) Installation of Supplemental Type Certificate (STC) ST01219SE ([http://rgl.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rgstc.nsf/0/ebd1cec7b301293e86257cb30045557a/\\$FILE/ST01219SE.pdf](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/ebd1cec7b301293e86257cb30045557a/$FILE/ST01219SE.pdf)) does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST01219SE is

installed, a "change in product" alternative method of compliance (AMOC) approval request is not necessary to comply with the requirements of 14 CFR 39.17.

**(d) Subject**

Air Transport Association (ATA) of America Code 53, Fuselage.

**(e) Unsafe Condition**

This AD was prompted by an evaluation by the design approval holder (DAH) that indicates the fuselage frames and frame reinforcements are subject to widespread fatigue damage (WFD). We are issuing this AD to detect and correct fatigue cracking of the fuselage frames and frame reinforcements, which could result in reduced structural integrity of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Retained Inspection, with References to Terminating Actions**

This paragraph restates the requirements of paragraph (g) of AD 2011-23-05, with references to terminating actions. At the applicable time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1279, Revision 1, dated September 2, 2011, except as required by paragraphs (k)(1), (k)(2), and (k)(4) of this AD: Do a high frequency eddy current (HFEC) surface or HFEC hole/edge inspection for any cracking of the 1.04-inch nominal diameter wire penetration hole in the frame and frame reinforcement between stringer (S) S-20 and S-21, in accordance with Part 2 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1279, Revision 1, dated September 2, 2011. Accomplishment of the applicable inspections required by paragraphs (m) and (n) of this AD terminates the inspections required by this paragraph. Accomplishment of the modification required by paragraph (p) of this AD terminates the inspections required by this paragraph for the modified area only.

**(h) Retained Repetitive Inspections, with References to Terminating Actions**

This paragraph restates the requirements of paragraph (h) of AD 2011-23-05, with references to terminating actions. Within 4,500 flight cycles after accomplishment of the most recent inspection specified in Part 2 or Part 4 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1279, Revision 1, dated September 2, 2011, or within 90 days after November 16, 2011 (the effective date of AD 2011-23-05), whichever occurs later: Do an HFEC hole/edge inspection for cracking of the 1.04-inch nominal diameter wire penetration hole in the frame and frame reinforcement between S-20 and S-21, in accordance with Part 4 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1279, Revision 1, dated September 2, 2011. Repeat the inspection thereafter at intervals not to exceed 4,500 flight cycles. Accomplishment of the applicable inspections required by paragraphs (m) and (n) of this AD, terminates the inspections required by this paragraph. Accomplishment of the modification specified in paragraph (j) or (p) of this AD terminates the repetitive inspections required by this paragraph for the modified area only. Accomplishment of the repair specified in paragraph (i) of this AD terminates the repetitive inspections required by this paragraph for the repaired area only.

**(i) Retained Repair, with No Changes**

This paragraph restates the requirements of paragraph (i) of AD 2011-23-05, with no changes. If any cracking is found during any inspection required by paragraph (g) or (h) of this AD: Before further flight, repair the crack including doing all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1279, Revision 1, dated September 2, 2011, except as required by paragraph (k)(3) of this AD. All applicable related investigative and corrective actions must be done before further flight. Accomplishment of the requirements of this paragraph terminates the repetitive

inspection requirements of paragraph (h) of this AD for the repaired location of that frame.

**(j) Retained Optional Terminating Action, with New Limitation**

This paragraph restates the optional action provided in paragraph (j) of AD 2011-23-05, with a new limitation. Accomplishment of the preventive modification before the effective date of this AD, including doing all related investigative and applicable corrective actions, specified in Part 5 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1279, Revision 1, dated September 2, 2011, except as required by paragraph (k)(3) of this AD, terminates the repetitive inspection requirements of paragraph (h) of this AD for the modified location of that frame, provided the modification is done before further flight after an inspection required by paragraph (g) or (h) of this AD has been done, and no cracking was found on that frame location during that inspection.

**(k) Retained Exceptions to Service Information Specifications, with No Changes**

This paragraph restates the requirements of paragraph (k) of AD 2011-23-05, with no changes. The following exceptions apply as specified in paragraphs (g), (i), and (j) of this AD.

(1) Where paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1279, Revision 1, dated September 2, 2011, refers to a compliance time “from date on Revision 1 of this service bulletin,” this AD requires compliance within the specified compliance time after November 16, 2011 (the effective date of AD 2011-23-05).

(2) For airplanes meeting all of the criteria specified in paragraphs (k)(2)(i), (k)(2)(ii), and (k)(2)(iii) of this AD: The compliance time for the initial inspection specified in Part 2 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1279, Revision 1, dated September 2, 2011, and required by paragraph (g) of

this AD, may be extended to 90 days after November 16, 2011 (the effective date of AD 2011-23-05).

(i) Model 737-300 series airplanes in Group 1, line numbers 1001 through 2565 inclusive;

(ii) Airplanes that have accumulated 40,000 or more total flight cycles as of November 16, 2011 (the effective date of AD 2011-23-05); and

(iii) Airplanes on which the modification specified in Boeing Service Bulletin 737-53-1273, dated September 20, 2006; Revision 1, dated December 21, 2006; Revision 2, dated June 4, 2007; Revision 3, dated December 7, 2009; or Revision 4, dated July 23, 2010; has been done, including any configuration or deviation that has been approved as an AMOC during accomplishment of these service bulletins, by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle Aircraft Certification Office (ACO) or Los Angeles ACO to make those findings.

(3) Where Boeing Alert Service Bulletin 737-53A1279, Revision 1, dated September 2, 2011, specifies to contact Boeing for appropriate repair instructions: Before further flight, repair the crack using a method approved in accordance with the procedures specified in paragraph (u) of this AD.

(4) The “Condition” column of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1279, Revision 1, dated September 2, 2011, refers to total flight cycles “at the date of/on this service bulletin.” However, this AD applies to the airplanes with the specified total flight cycles as of November 16, 2011 (the effective date of AD 2011-23-05).

**(l) Retained Credit for Previous Actions, with No Changes**

This paragraph restates the requirements of paragraph (l) of AD 2011-23-05, with no changes. Actions done in accordance with Boeing Alert Service Bulletin

737-53A1279, dated December 18, 2007, before November 16, 2011 (the effective date of AD 2011-23-05), are acceptable for compliance with the corresponding actions required by paragraphs (g), (h), (i), and (j) of this AD.

**(m) New Requirement of this AD: Inspections of Frames and Frame Reinforcements between S-19 and S-22 for Certain Airplanes on Which Certain Inspections Have Not Been Accomplished**

For airplanes identified as Groups 1 through 6, Configuration 3, in Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015, with 30,000 total flight cycles or fewer as of the effective date of this AD, on which any inspections specified in Boeing Alert Service Bulletin 737-53A1279, Revision 1, dated September 2, 2011, have not been accomplished: Except as required by paragraphs (t)(1) and (t)(2) of this AD, at the applicable time specified in table 1 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015, or within 4,500 flight cycles after the effective date of this AD, whichever occurs later, do inspections for cracking at certain locations in the frames and frame reinforcements in accordance with “Part 2 – Initial Detail and HFEC Inspection” of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015. Repeat the inspections for cracking at certain locations in the frames and frame reinforcements as specified in “Part 4 – Repeat Detail and HFEC Inspections” of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015, thereafter at the applicable interval specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015; or, before further flight after accomplishing the Part 2 or Part 4 inspections specified in this paragraph, and no cracking was found, do “Part 5 – Preventative Modification” as specified in the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015. Accomplishment of the preventive modification specified in this paragraph terminates the repetitive inspections required by

this paragraph for the modified area only. Do all actions specified in this paragraph in accordance with Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015.

**(n) New Requirement of this AD: Inspections of Frames and Frame Reinforcements between S-19 and S-22 for Groups 1-6, Configuration 3, Airplanes**

For airplanes identified as Groups 1 through 6, Configuration 3, in Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015, with more than 30,000 total flight cycles as of the effective date of this AD, or that have been inspected as specified in Boeing Alert Service Bulletin 737-53A1279, Revision 1, dated September 2, 2011: Except as required by paragraphs (t)(1) and (t)(2) of this AD, at the applicable time specified in table 1 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015, do inspections for cracking at certain locations of the frames and frame reinforcements in accordance with “Part 4 – Repeat Detail and HFEC Inspections” of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015. Repeat the inspections thereafter at the applicable interval specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015; or, before further flight after accomplishing the Part 4 inspection specified in this paragraph, and no cracking was found, do “Part 5 - Preventative Modification” as specified in the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015. Accomplishment of the preventive modification specified in this paragraph terminates the repetitive inspections required by this paragraph for the modified area only.

**(o) New Requirement of this AD: Repairs**

If any crack is found during any inspection required by paragraph (m) or (n) of this AD: Before further flight, repair, in accordance with “Part 3 – Repair” of the



Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015, except where Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015, specifies to contact Boeing for damage removal and repair instructions, repair before further flight using a method approved in accordance with the procedures specified in paragraph (u) of this AD. Accomplishing a repair terminates the inspections required by paragraphs (m) and (n) of this AD in the repaired area only. Accomplishment of a repair terminates the modification required by paragraph (p) of this AD at the repaired location only.

**(p) New Requirement of this AD: Preventative Modification of the Frames between S-19 and S-22**

For airplanes identified as Groups 1 through 6, Configuration 3, in Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015: Except as required by paragraphs (t)(1) and (t)(2) of this AD, at the applicable time specified in table 2 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015, do the preventive modification of the frames between S-19 and S-22, in accordance with “Part 5 – Preventative Modification” of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015. Accomplishment of the modification required by this paragraph terminates the requirements of paragraphs (g), (h), (m), and (n) of this AD for the modified location only.

**(q) New Requirement of this AD: Inspections of Preventive Modification for Groups 1-3, Configuration 1, Airplanes**

For airplanes identified as Groups 1 through 3, Configuration 1, in Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015: Except as required by paragraph (t)(1) of this AD, at the applicable time specified in table 3 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015, do HFEC, LFEC, and detailed inspections for cracking in accordance

with “Part 7 – INSPECTION OF PREVENTATIVE MODIFICATION” of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015. Repeat the inspections thereafter at the applicable interval specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015. If any cracking is found during any inspection required by this paragraph, before further flight, repair using a method approved in accordance with the procedures specified in paragraph (u) of this AD.

**(r) New Requirement of this AD: Inspections of Preventive Modification for Groups 1-6, Configuration 2, Airplanes**

For airplanes identified as Groups 1 through 6, Configuration 2, in Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015: Except as required by paragraph (t)(1) of this AD, at the applicable time specified in table 4 or table 6 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015, do HFEC, LFEC, and detailed inspections for cracking in accordance with “Part 8 – INSPECTION OF PREVENTATIVE MODIFICATION” of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015. Repeat the inspections thereafter at the applicable interval specified in table 4 or table 6 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015. If any cracking is found during any inspection required by this paragraph, before further flight, repair using a method approved in accordance with the procedures specified in paragraph (u) of this AD.

**(s) New Requirement of this AD: Inspections of Preventive Modification for Groups 4-6, Configuration 1, Airplanes**

For airplanes identified as Groups 4 through 6, Configuration 1, in Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015: At the applicable time specified in table 5 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin

737-53A1279, Revision 2, dated April 21, 2015, except as required by paragraph (t)(1) of this AD: Do HFEC and detailed inspections for cracking in accordance with “Part 7 – INSPECTION OF PREVENTATIVE MODIFICATION” of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015. Repeat the inspections thereafter at the applicable time specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015. If any cracking is found during any inspection required by this paragraph, before further flight, repair using a method approved in accordance with the procedures specified in paragraph (u) of this AD.

**(t) New Requirement of this AD: Exceptions to Service Bulletin Specifications**

(1) Where paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015, refers to a compliance time “after the Revision 2 date of this service bulletin,” this AD requires compliance within the specified compliance time after the effective date of this AD.

(2) The “Condition” column in table 1 and table 2 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015, refers to total flight cycles “at the Revision 2 date of this service bulletin.” However, this AD applies to the airplanes with the specified total flight cycles as of the effective date of this AD.

**(u) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Los Angeles ACO, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in paragraph (v)(1) of this AD. Information may be emailed to: 9-ANM-LAACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by the Boeing Commercial Airplanes ODA that has been authorized by the Manager, Los Angeles ACO, to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane and the approval must specifically refer to this AD.

(4) AMOCs approved for the ADs in paragraphs (u)(4)(i) through (u)(4)(iii) of this AD are approved as AMOCs for the corresponding provisions of this AD.

(i) AD 2009-02-06, Amendment 39-15796 (74 FR 10469, March 11, 2009).

(ii) AD 2009-02-06 R1, Amendment 39-16015 (74 FR 45979, September 8, 2009).

(iii) AD 2011-23-05.

**(v) Related Information**

(1) For more information about this AD, contact Galib Abumeri, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles ACO, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5324; fax: 562-627-5210; email: galib.abumeri@faa.gov.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (w)(5) and (w)(6) of this AD.

**(w) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(3) The following service information was approved for IBR on [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(i) Boeing Alert Service Bulletin 737-53A1279, Revision 2, dated April 21, 2015.

(ii) Reserved.

(4) The following service information was approved for IBR on November 16, 2011 (76 FR 67343, November 1, 2011).

(i) Boeing Alert Service Bulletin 737-53A1279, Revision 1, dated September 2, 2011.

(ii) Reserved.

(5) For Boeing service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>.

(6) You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(7) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:  
<http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on May 18, 2016.

Dionne Palermo,  
Acting Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.  
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